

REMARKS

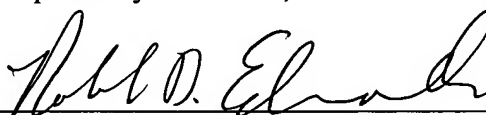
This is intended as a full and complete response to the Final Office Action dated June 28, 2005, having a shortened statutory period for response set to expire on September 28, 2005, and a full and complete response to the Advisory Action dated September 7, 2005.

Figures 1 and 2 are objected to under to under 37 CFR § 1.84(o). Applicant has presented proposed amendments to the drawings to include the descriptive legends requested by the Examiner and to remove the box labeled "11" (Figure 2) which was not described in the specification. Applicant has also included a replacement sheet of formal drawings to replace Figs. 1 and 2. Withdrawal of the drawing objection is respectfully requested.

Claims 1-5 and 8-20 remain pending in the application and are shown above. Claims 1-5 and 8-11 stand rejected and claims 13-20 are indicated to be allowable by the Examiner. Claim 12 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicant has canceled claim 12 and added new claim 21 to present claim 12 in independent form including all of the limitations of the base claim and intervening claims (claim 3). Allowance of claim 21 is respectfully requested. Applicant has also cancelled claims 1-5 and 8-12 without prejudice to place the application in condition for allowance.

Having addressed all issues set out in the Final Office Action and Advisory Action, Applicant respectfully submits that the claims are in condition for allowance and respectfully request that the claims be allowed.

Respectfully submitted,



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IN THE DRAWINGS:

The attached replacement sheet of drawings includes changes to Figs. 1 and 2 that are shown in the attached annotated sheet showing changes. The attached replacement sheet, which includes Figs. 1 and 2, replaces the original sheet of Figs. 1 and 2.

Attachments: **Replacement Sheet**
 Annotated Sheet Showing Changes

Fig. 1

1

2a

2b

3

4

5

6

7

8

9

Filter

The diagram illustrates a multiplier architecture. It begins in the **Electrical domain** (labeled 11), which includes an **Emitter** (10). The signal path continues through an **Electro-optic conversion** stage (12), which is divided into four sub-sections: 14a, 14b, 14c, and 14d. These sections are connected to a **Passive Interleaver** (15). The output of the interleaver is then fed into an **All-optical MUX** (1), which contains a multiplexer core (2a, 2b) and a final output stage (3, 4). The final output is labeled 9. Handwritten annotations include "Passive Interleaver" pointing to block 15 and "Multiplier" pointing to the entire system.